

# Fit Kids For Healthy Hearts Research



## THE RESULTS!

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Two years ago this research team embarked on a study to investigate the physical and psychological wellbeing of young children in Northern Ireland with structural heart disease. Thanks to the participation of over one hundred and sixty of our heart families and with the support of the Children's Heartbeat Trust we can now report some of the initial findings.

Most of us are aware that physical activity is an important part of a healthy lifestyle and appreciate the benefits of daily exercise. However, too few people get the recommended amount of activity each week. We believed that children with heart problems are a group who could benefit from regular exercise. We hoped that through a supportive programme we could encourage good lifestyle choices and increase the amount of regular exercise taken by this group of children.

## Study Design

Patients aged between 5-10 years old with structural heart disease were invited to take part.

The study had 3 main stages:

### 1. Baseline physical & psychological assessments

- Weight, height, waist measurements
- Exercise bike test - to assess max exercise ability
- Actigraph activity monitor - worn at home for 1 week to record daily physical activity

The psychological assessments included a number of questionnaires:

- Kidscreen27: To score health related quality of life
- Strengths and Difficulties Questionnaire: To assess for behavioral issues
- Children aged over 7 years completed the Butler Self Image Profile to look for changes in self-image and self-esteem.

### 2. Structured intervention programme: Fit Kids for Healthy Hearts

Children randomised to the intervention group were invited, along with their parents, to attend a group session. The programme included:

- Motivational session delivered by a clinical psychologist to encourage positive lifestyle changes
- Structured dietary advice from trained paediatric dieticians
- Child friendly coaching advice and fun ideas to increase physical activity
- Individual exercise advice plan for each child to be used at home over the following 4 months

The aim was to encourage healthy lifestyle choices for the whole family, as well as a safe exercise plan for each child.

Children randomised to the control group will continue to receive their usual level of care from the Department of Cardiology.

### 3. Reassessment with the same measurements as at baseline after 4 month intervention period

## Results

163 N.I Heart Families took part in the research.

### Baseline Results

For majority of children with CHD both activity levels and health related quality of life are well preserved. Children who had a condition with a single pumping chamber were found to have lower levels of daily activity and reduced maximum exercise abilities than children with a more minor heart condition.

All of the children scored themselves to be equal or better than average on self image subscales.

### Reassessment Results

The structured intervention programme "Fit Kids for Healthy Hearts" significantly improved max exercise abilities in the children in the intervention group compared to those in the control group.

It was also found to have a positive effect on parents' attitudes towards healthy eating and exercise.

## Recommendations

It is important that families receive early education on the importance and safety of regular exercise in CHD. It is also vital that this is maintained throughout the teenage years when activity levels can decline.

Participation in regular exercise can also have a positive impact on self-esteem and development of social skills.

Even children with complex heart conditions should be encouraged to participate in regular moderate physical activity. If you have any concerns about your child participating in physical activities please ask their cardiologist about an exercise prescription form.